

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

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Koji TSUCHIKAWA, et al.

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Group Art Unit: 1616

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For: ULTRAVIOLET PROTECTIVE PREPARATION AND COSMETICS CONTAINING THE SAME

DECLARATION UNDER 37 C.F.R. § 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Makoto Matsuzawa, hereby declare and state:

THAT I am a citizen of Japan;

THAT I have received the degree from the Graduate School of Faculty of Engineering,
Tokyo University of Science (Tokyo Rika Daigaku) in March 2004;

THAT I have been employed by The Nisshin Oillio Group, Ltd. since April 2004 where I
have responsibility for evaluation of cosmetic raw material and formulation development of
cosmetics; and

THAT I personally conducted or supervised the conduct of the following
experimentation.

Experimental Method:

The following experiments were conducted to compare when a cosmetic is produced by
using an ultraviolet protective preparation for cosmetic raw material of the present invention

with when the cosmetic is produced without preparing the ultraviolet protective preparation beforehand.

Composition of the UV cream of Example 16 shown in following Table 1 has the same composition as the UV cream of Comparative Example 34 shown in following Table 1. However, the UV cream of Example 16 was produced by using an ultraviolet protective preparation of Example 5 as a cosmetic raw material of the present invention. On the other hand, the UV cream of Comparative Example 34 was produced without using the ultraviolet protective preparation.

Table 1

Formulation of the W/O type non-chemical UV cream unit: wt%		
	Example 16	Comparative Example 34
[Oil phase]		
Volatile cyclic silicone	20.0	20.0
Ultraviolet protective preparation for cosmetic raw material (Using Example 5)	22.9	—
NOMCORT HK-G	—	0.14
T.I.O	—	14.52
MT-100TV	—	8.01
BASIS LP-20H	—	0.23
Squalane	1.4	1.4
Dimethyconchopolyol	2.0	2.0
Organic modified montmorillonite	0.5	0.5
[Water phase]		
Methyl parabene	0.2	0.2
Purified water	46.0	46.0
Dipropylene glycol	7.0	7.0
Dispersibility in an oil phase	○	×
Transparent feel	○	△
Extension	◎	△

[Preparative method]

Components of the oil phase, except the ultraviolet protective preparation or MT-100TV

(micropowdery titanium dioxide) were heated to 60°C and mixed at 2000 rpm for 5 minutes by a dispermixer (MIZUHO Industrial CO., LTD).

Next, the ultraviolet protective preparation or MT-100TV was dispersed in the oil phase. Next, the water phase heated to 60°C was gradually added to the oil phase with stirring the oil phase at 5000 rpm by a dispermixer. After the addition of the water phase was finished, the dispermixer was operated at 5000 rpm for 5 minutes, followed by cooling to 25 degrees Celsius to obtain a W/O type non-chemical UV cream.

[Dispersibility in an oil phase]

The dispersibility of the ultraviolet protective preparation or MT-100TV in the oil phase when the ultraviolet protective preparation or MT-100TV was dispersed in the oil phase, was visually observed to confirm the state of the dispersion. The results are shown in Table 1. As a result, the state of the dispersion was rated as follows: the case where an ultraviolet protective powder was uniformly dispersed was rated as O, the case where an ultraviolet protective powder was slightly coagulated and sedimented was rated as Δ and the case where an ultraviolet protective powder was considerably coagulated and sedimented was rated as X.

[Functional evaluation of Transparent feel]

Functional evaluation of Transparent feel was made by 10 panelists. Specifically, 10 evaluation panelists were made to evaluate the transparent feel of the obtained UV cream when 0.05 g of the cream was put on Bio Skin Plate (Beaulax Co., Ltd.), painted and extended for 1 minute in accordance with the following standard. The results are shown in Table 1.

Standard of functional evaluation		Indication of functional evaluation	
Marks	Details of the evaluation	Mean value of marks	Functional evaluation
Point 2	A transparent feel is felt	1.5-2.0	○
Point 1	A white-opaque feel is somewhat felt.	1.0-1.4	△
Point 0	A white-opaque feel is observed.	0-0.9	×

[Functional evaluation of Extension]

Functional evaluation of Extension was made by 10 panelists. Specifically, 10 evaluation panelists were made to evaluate the extension of the obtained UV cream when the cream was applied to the inward part of the upper arm in accordance with a standard of Table 11 described in the specification (reproduced herein). The results are shown in Table 1.

Table 11

Table 11: Standard and indication of the functional evaluation of extension			
Standard of functional evaluation		Indication of functional evaluation	
Marks	Details of evaluation	Mean value of marks	Functional evaluation
Point 4	Very easy to spread	3.5-4	◎
Point 3	Easy to spread	3.0-3.4	○
Point 2	Somewhat difficult to spread	2.0-2.9	△
Point 1	Difficult to spread	1.0-1.9	▲
Point 0	Very difficult to spread	0-0.9	×

[Evaluation result]

All evaluation items of the UV cream of Example 16 produced by using the ultraviolet protective preparation of the present invention were superior to all evaluation items of the UV cream of Comparative Example 34 produced without using the medicine made of the ultraviolet rays defense for the ultraviolet protective preparation of the present invention of all items.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that

these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: July 29, 2009

Makoto Matsuzawa
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